



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Attorney Docket No. 070639/0132

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Applicant: Yuichi KUSUMOTO

Title: SYSTEM AND METHOD OF AVOIDING CELL DISPOSAL IN  
BUFFER

Serial No.: 09/718,378

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Examiner: Unknown

Art Unit: 2661

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**INFORMATION DISCLOSURE STATEMENT  
UNDER 37 CFR §1.56 and 37 CFR §1.97**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Submitted herewith on Form PTO SB/08 is a listing of documents known to Applicant in order to comply with Applicant's duty of disclosure pursuant to 37 CFR 1.56. A copy of each listed document is being submitted to comply with the provisions of 37 CFR 1.97 and 1.98.

The submission of any documents herewith, which is not a statutory bar, is not intended as an admission that such document constitutes prior art against the claims of the present application or that such document is considered material to patentability as defined in 37 CFR §1.56(b). Applicant does not waive any rights to take any action which would be appropriate to antedate or otherwise remove as a competent reference any document which is determined to be a prima facie prior art reference against the claims of the present application.

**TIMING OF THE DISCLOSURE**

The instant Information Disclosure Statement is believed to be filed in accordance with 37 C.F.R. 1.97(b), prior to the mailing date of a first Office Action on the merits (first scenario). If that is not the case, such as in a second scenario in which a first Office Action on the merits has been mailed before the filing of the instant Information Disclosure Statement, then either a certification or fee is required, and a certification is provided below. If neither of the first or second scenarios is the case, such as if a final Office Action or a notice of allowance has been mailed by the PTO (third scenario), then both a certification and fee are required, and in that case a certification is provided below and also the PTO is authorized to obtain the necessary fee to have the instant IDS considered, from Foley & Lardner Deposit Account #19-0741.

**CERTIFICATION**

The undersigned hereby certifies in accordance with 37 C.F.R. §1.97(e)(1) that items of information A2 and A3 listed on the form PTO SB/08 submitted with this Information Disclosure Statement were first cited in a communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of this Statement. Item of information A1 is a U.S. patent that is a counterpart to item of information A3.

**RELEVANCE OF EACH DOCUMENT**

A translation of a portion of a Japanese Office Action that issued June 17, 2003 with respect to a counterpart Japanese patent application is provided below.

"The inventions according to the following claims in the present application could easily have been invented by individuals having a common knowledge of the field of technology to which the inventions belong based on the inventions described in the publications listed below, which had been distributed in Japan or in foreign countries prior to the date of application, and thus [said inventions] are ineligible to receive patent protection based on the stipulations of Article 29, Paragraph 2 of the Japan Patent Law.

## Note

Claims: 1 through 22

## Publications

1. Japanese Unexamined Patent Application Publication H11-275112
2. Japanese Unexamined Patent Application Publication H7-79252

## Comments

(Claims 1, 3, 5, 8, 10, 11, 13, 14, 16, 19, 20, 22):  
Cited Examples 1 and 2

Cited Example 1 describes a cell transmission scheduling device wherein cues are equipped for each class, wherein the weighting value for each queue is modified dynamically based on the queue length (corresponding to the "weighting" in the present application) in order to increase the number of opportunities for transmitting cells in queues wherein the queue lengths are long. (See paragraphs 0023 and 0024.)

Cited Example 2 describes, as an output control method in a packet switching device equipped with multiple buffers, the placement of priority on output from buffers wherein the number of packets stored exceeds a threshold value. (See Claim 1.)

Consequently, by applying Cited Example 2 to Cited Example 1 and, in Cited Example 1, replacing the structure wherein the weighting value is changed dynamically based on the queue length with, instead, a structure wherein the weighting value changes for buffers wherein the number of packets stored exceeds the threshold value, as described in Cited Example 2, and then prioritizing the output, it would be easy for an individual in the industry to arrive at the structure of the inventions according to the claims listed above in the present application.

Note that in Cited Example 2, the decision as to whether to make the decision whether or not to give priority to an output based on whether or not the number of packets stored exceeds a threshold value or based on whether or not packets have been lost is no more than a design issue to the selected as appropriate by an individual in the industry.

(Claims 2, 6, 12, 17): Cited Examples 1 and 2

Cited Example 1 is seen as having the weighting values change dynamically based on the queue lengths for each of the queues, and performing control is so as to reduce the number of opportunities for transmitting cells accordingly if the queue length is short. Consequently, based on the description in Cited Example 1, there is no particular difficulty engendered in a structure wherein the weighting value returns to the initial weighting value if the queue length becomes short and falls below a threshold value. Additionally, setting different threshold value for initiating congestion control and terminating [congestion control], or in other words, having hysteresis, is well-known to individuals in the industry.

(Claims 4, 9, 15, 21): Cited Examples 1 and 2

Having the weighting values change automatically or having an operator change [the weighting values] manually is no more than a design issue to be selected as appropriate by an individual in the industry.

(Claims 7 and 18): Cited Examples 1 and 2

Because in Cited Example 1 the weighting values are changed dynamically based on the queue lengths of each queue, it does not engender any particular difficulty to have, based on the description in Cited Example 1, a structure wherein multiple thresholds are established and congestion control is performed in stages.

#### Record of Prior Art Literature Search Results

Fields searched - IPC 7<sup>th</sup> Edition - H04L 12/56

#### Prior art literature

1. Japanese Unexamined Patent Application Publication H6-104917
2. Japanese Unexamined Patent Application Publication H7-297840
3. Japanese Unexamined Patent Application Publication H9-149051"

Applicant's statements regarding the Japanese Office Action are based on a partial translation that Applicant's representative obtained. These statements should in no way be considered as an agreement by Applicant with, or an admission of, what is asserted in the Japanese Office Action.

Applicant respectfully requests that the listed documents be considered by the Examiner and formally be made of record in the present application and that an initialed copy of Form PTO SB/08 be returned in accordance with MPEP §609.

Respectfully submitted,

July 29, 2003  
Date

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